

2008 CRFM Activities

March 26, 2008

Bonneville Dam

1. BII Shallow Draft Behavioral Guidance Structure Evaluation
 - A ~700' long, 10' deep guidance boom has been installed in the BII forebay to guide more fish to the BII Corner Collector.
 - Acoustic telemetry will be used to assess yearling Chinook, steelhead, and subyearling Chinook behavioral response to the BGS and to estimate passage distribution at BII.
2. Spillway Survival Evaluation
 - Survival for yearling Chinook that pass the spillway and dam will be estimated for a 100 kcfs, 24-hours/day spill operation from approximately April 21 to June 20.
 - Survival for subyearling Chinook that pass the spillway and dam will be estimated for a 85 kcfs daytime/TDG cap nighttime spill operation from June 21 to approximately July 20.
3. B2 FGE Improvements Evaluation
 - JBS fish condition, mortality, and OPE of Spring Creek March releases and run of fish under various turbine loading (March-June).
4. BII Corner Collector Kelt Passage Evaluation
 - Hydroacoustic monitoring of kelt passage at the BII Corner Collector during March/April.
5. Chum Redd TDG Monitoring
 - Field and lab component Feb-May monitoring and examining the effects of TDG.
6. Sea Lion Predation Observations
 - We will continue to observe and document sea lion predation on spring Chinook, steelhead, lamprey and sturgeon in the tailrace of Bonneville Dam.
7. Adult Lamprey Passage Evaluation
 - Examine the effect of reducing nighttime ladder entrance flow on adult lamprey entrance and passage through BII fishways.

The Dalles Dam

1. No research planned for 2008.
2. We will initiate construction of a 850' long spillwall that extends downstream between bays 8 and 9. We are asking for an extension of the in-water work window – from 1 October through 31 March. Construction will take two complete in-water work periods (winter) and be complete for a 2010 post-construction evaluation.

John Day Dam

1. Top Spillway Weirs (TSWs) Evaluation

- Two TSWs will be installed, one in bay 15 and one in bay 16. Each TSW passes approximately 10 kcfs. Spill pattern* development will be completed on April 4 (ERDC spill pattern trip planned for week of 3/31) for operating the spillway with TSWs.
- Direct effects of yearling Chinook passage through the TSWs vs a standard spill bay will be evaluated from March 31 - April 4 (Hi-Z balloon tag).
- From approximately April 27 (depending on fish availability) through July 20, we will evaluate passage and survival at 30% vs. 40% spill with the TSWs operating. Yearling Chinook, steelhead, and subyearling Chinook passage will be evaluated using acoustic telemetry:
 - Forebay residence time (from ~2km upstream to passage)
 - 2-D and 3-D near-dam behavior
 - Survival through the dam and for all routes
 - Tailrace egress times
 - GPS drogue tailrace egress times and paths

McNary Dam

1. Top Spillway Weirs (TSWs) Evaluation
 - TSWs in bays 19 and 20.
 - 2008 spill pattern* development complete.
 - Revised unit operating priority to improve tailrace egress*.
 - Spring acoustic telemetry passage and survival evaluation consists of a single 40% spill treatment to begin ~April 10.
 - Summer acoustic telemetry passage and survival evaluation will examine of two spill treatments (40% vs. 60%) with a single spill pattern to begin ~mid-June.

Ice Harbor Dam

1. Project Passage and Survival Evaluation
 - 30% vs. 45kcfs/TDG cap spill.
 - Single release project survival estimates using LMN study fish.
2. Avian Predation of Steelhead
 - Steelhead collected and tagged at JBS for release.

Lower Monumental Dam

1. Removable Spillway Weir (RSW) Evaluation
 - RSW installed in Bay 8.
 - Spring two-treatment test to evaluate two spill patterns* (Bulk vs. Flat) at TDG cap spill.
 - Summer single treatment test to evaluate RSW performance at 17 kcfs spill.
 - “Bulk” pattern (Table 1) will be used outside of study window.

Little Goose Dam

1. Adult Passage Evaluation
 - Three treatment (spill patterns*) radio telemetry evaluation to determine the effects of tailrace hydraulics on adult passage.

Lower Granite Dam

1. Adult Passage Evaluation
 - Second year of transition pool modification post-construction evaluation. Also, examine passage behavior relative to temperature differentials in ladder.
2. Transportation Seasonal Effects Evaluation
 - Weekly barging begins April 10 to determine an optimal transportation strategy.
3. Alternate Barging Strategies
 - Weekly barging begins April 21 to determine effects of releasing smolts at alternative sites below Bonneville Dam.